

NOV 29 2005

Attorney's Docket No.: 14580/045001/FP2078

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Claims 1-17 stand rejected under 35 USC 103 as allegedly being unpatentable over Aggarwal et al. in view of Maloney et al. In response, the claims are amended herewith to obviate the rejection. Specifically, claim 1 is amended to include the limitations of claim 11 therein, which is now canceled. Claim 1 defines a nitrogen thermal decomposition treatment to convert the patterned layer to a hard mask layer with a metal nitride. Claims 8-10 are also canceled since they are inconsistent with the new main claim.

The rejection alleges that Aggarwal et al. defines everything that is claimed except for its sol-gel layer being photosensitive. With all due respect, it is respectfully suggested that this is not taught or suggested by Aggarwal et al. In fact, Aggarwal et al. does not disclose the hard mask being a sol-gel layer at all.

Aggarwal et al. does not disclose that the hardmask is a sol-gel layer. Paragraph 51 cited by the action, does discuss sol-gel layers, but only in relation to the interlevel dielectric layers 112, 134 and 160, not the hardmask layer 132. Also, Aggarwal et al. does not disclose a thermal decomposition

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treatment to convert the hardmask material to corresponding oxides and nitrides because, when the hardmask is deposited, it is already an oxide or nitride (see paragraph 67); no step is required to convert the hardmask. Thus, it seems that Aggarwal et al. simply discloses depositing and patterning or non-sol-gel hardmask and these steps are well known in the art, in any case.

Thus, new claim 1 is certainly already novel over both Aggarwal et al. and Maloney et al. We also believe that new claim 1 is inventive over the combination of Aggarwal et al. with Maloney et al. because, in Maloney et al., the only type of thermal decomposition treatment that is disclosed is an oxygen treatment to convert the hardmask to metal oxides. The feature of applying a nitrogen thermal decomposition treatment to convert the layer to a metal nitride is not disclosed or suggested in Maloney et al. Thus, there would be no motivation for the skilled person to use a nitrogen treatment rather than an oxygen treatment, when provided with the two documents Aggarwal et al. and Maloney et al. Thus, it is submitted that new claim 1 is inventive over the cited documents.

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be

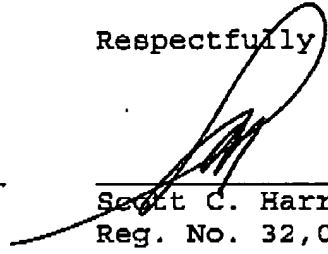
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exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicant asks that all claims be allowed. Please apply the Petition for Extension of Time fee, and any other applicable charges or credits, to Deposit Account No. 06-1050.

Respectfully submitted,

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